

广东沿岸水域糠虾类三新种*

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广东沿岸水域有丰富的糠虾资源,不仅可供食用,还可利用作为水产养殖海马的活饵。本文报道的3个新种采自广东吴川县沙田和南海北部。现将新种描述如下。

纤细刺糠虾(新种) *Acanthomysis tenella* sp. nov. (图1)

正模标本 成体雄性,体长5.2 mm。标本号 K78-li, 1978年5月采自广东吴川县沙田。

副模标本 成体雌性,体长5.2 mm。标本号 K78p-lj, 3♂♂, 3♀♀。标本采集地点、日期同正模。

其他材料 12♂♂, 24♀♀, 体长4.5—5.2 mm, 采集地点、时间也与正模相同。

成体最大体长5.2 mm。

体纤细。甲壳表面光滑,腹部无沟、齿列或褶。额板三角形、末端稍钝尖,约伸至第1触角柄第1节1/3处。头胸甲前侧角圆形。眼较细长,长约为宽的 $1\frac{1}{2}$ — $1\frac{1}{2}$ 倍,角膜肾形,其宽度与眼柄略等;眼柄显著长于角膜。

雄性第1触角柄较粗,其长度略等于或稍长于第2触角鳞片,第1节与第3节长度略较但纤等,细,长约为第2节的2倍。第3节较粗壮,背面末端两鞭基部之间具1齿突。雌性第1触角柄较纤细。第2触角鳞片稍窄长,长约为宽的5倍;末节长约为宽的 $1\frac{1}{2}$ 倍。上唇长显著大于宽,前缘中央刺细长、尖锐,等于上唇本身的长度。

第3—8胸肢内肢掌节由3—5小节构成;外肢基节外末角具1—3个不显著的小刺。雄性第4腹肢外肢细长,基节长约为末节的5倍,末节末端具两个不等长的带小刺刚毛,内毛稍长于外毛,约为末节长的 $2-2\frac{1}{2}$ 倍。

尾节长三角形,长约为基部宽的2倍。侧缘具40多刺,基部刺大小相似,末部3/5两大刺间具1—2较小的刺;末端窄圆,其宽约为基部宽的1/8左右,具4个较细的大刺,中央刺稍长,外侧刺略短。

尾肢内肢稍长于尾节,内缘平衡囊下方有1、2个小刺;外肢长约为尾节的 $1\frac{1}{2}$ 倍。

本新种与窄尾刺糠虾 *Acanthomysis leptura* Liu et Wang, 1980 颇为相似,但后者个体较大,大标本一般体长为6.0—7.5mm;眼粗短,长仅稍大于宽;第2触角鳞片长为宽的 $5\frac{1}{2}$ —6倍;第3—8胸肢内肢掌节3—5小节;尾节侧刺长短差别较大;尾肢内肢内缘腹面具2—3刺。而本新种个体较小,成体体长为4.5—5.2mm;眼较细长,长显著大于宽;第2触角鳞片长约为宽的5倍;尾节侧缘刺长短差别较小;尾肢内肢腹面仅具1—2

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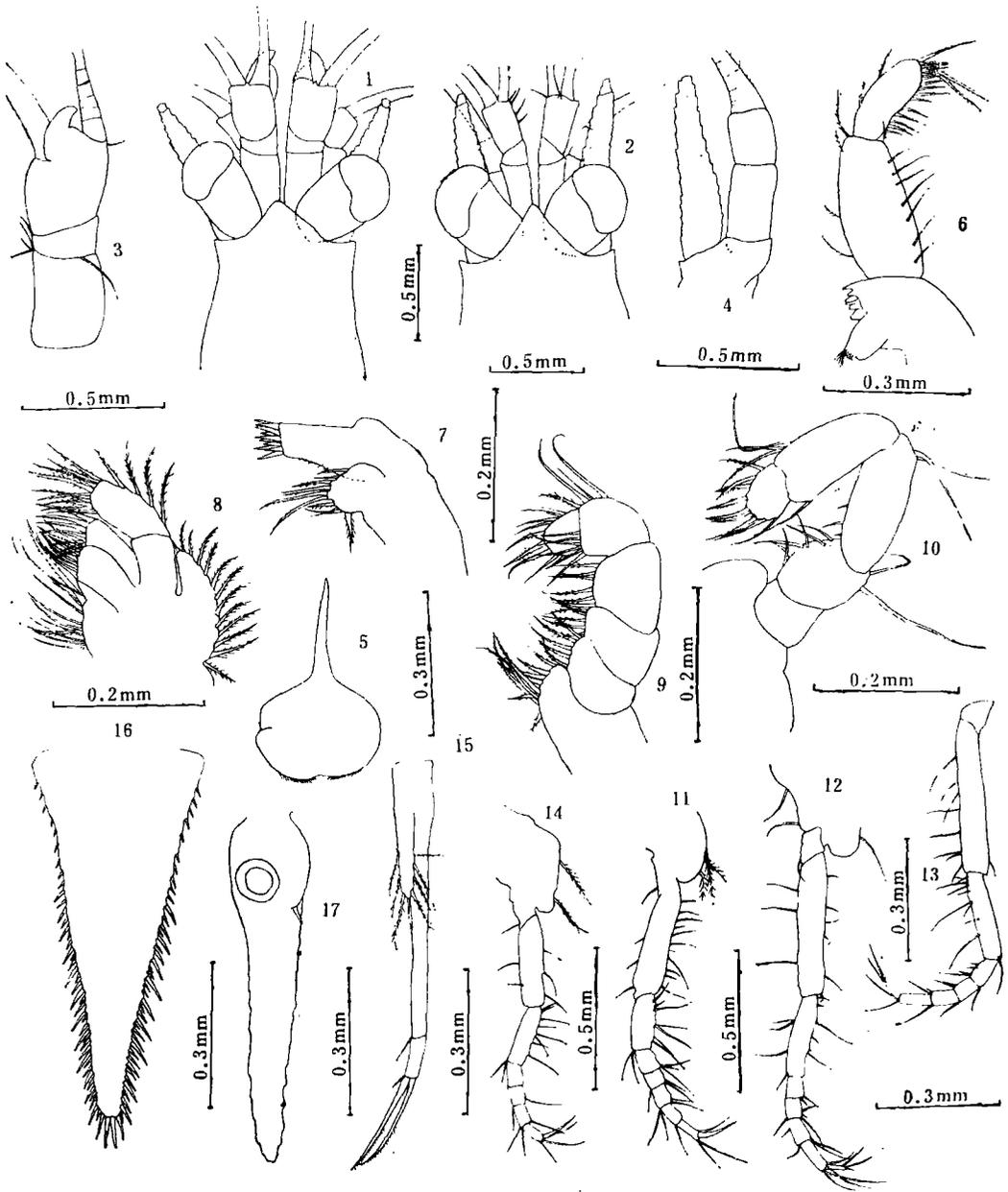


图 1. 纤细刺糠虾 (新种) *Acanthomysis tenella* sp. nov.

- 1. 雄性头部背面; 2. 雌性头部背面; 3. 第 1 触角柄; 4. 第 2 触角; 5. 上唇; 6. 大颚; 7. 第 1 小颚; 8. 第 2 小颚; 9. 第 1 胸肢内肢; 10. 第 2 胸肢内肢; 11. 第 3 胸肢内肢; 12. 第 5 胸肢内肢; 13. 第 6 胸肢内肢; 14. 第 7 胸肢内肢; 15. 雄性第 4 腹部; 16. 尾节; 17. 尾肢内肢。

刺, 两种差异显著。刺糠虾属和新糠虾属的种, 眼的粗细程度明显地分为两种类型: 一类眼短粗, 另一类眼细长, 即使是未成长的幼小个体, 粗眼和细眼的种也显然不同, 容易区别。

本新种与南方刺糠虾 (新种) *Acanthomysis meridionalis* sp. nov. 也颇为相似, 但后者的眼较短, 角膜显著宽于眼柄; 上唇长稍大于宽, 前缘中央刺突短, 约为上唇本身长的

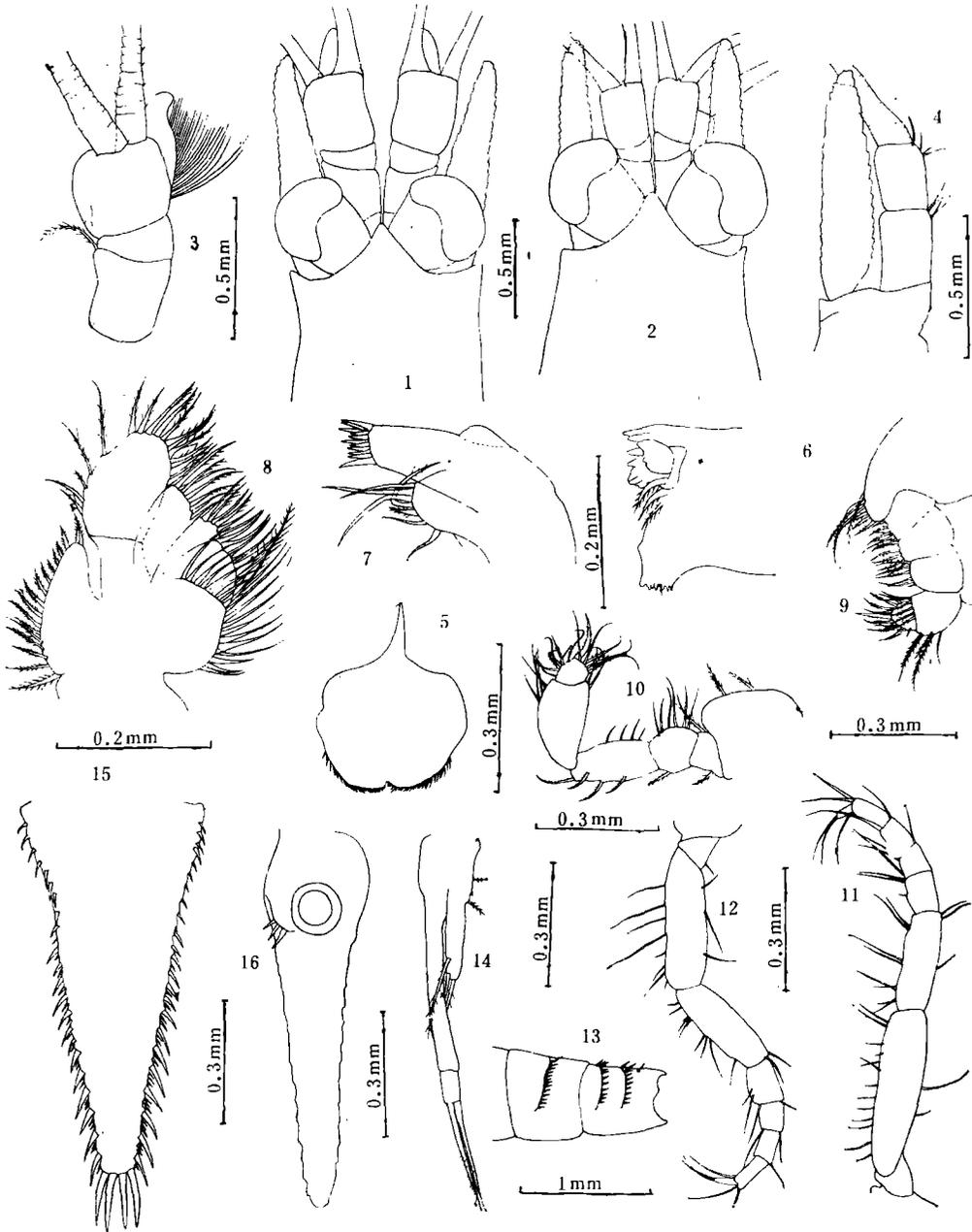


图 2. 南方刺糠虾(新种) *Acanthomysis meridionalis* sp. nov.

1. 雄性头部背面; 2. 雌性头部背面; 3. 第 1 触角柄; 4. 第 2 触角; 5. 上唇; 6. 大颚末部;
7. 第 1 小颚; 8. 第 2 小颚; 9. 第 1 胸肢内肢; 10. 第 2 胸肢内肢; 11. 第 4 胸肢内肢; 12.
第 6 胸肢内肢; 13. 第 5、6 腹节侧面; 14. 雄性第 4 腹肢; 15. 尾节; 16. 尾肢内肢。

1/2; 尾节侧缘刺的排列为在两大刺间具 1—3 小刺, 末端刺显著较粗而长; 尾肢内肢内缘基部具 3 小刺。本新种的眼显著较细长, 角膜与眼柄大体等宽; 上唇长显著大于宽, 前缘中央刺突长, 与上唇本身的长度大约相等; 尾节侧缘在较大的刺间仅具 1—2 个较小的刺,

末端刺细长；尾肢内肢内缘基部仅具 1—2 刺。

本新种迄今仅发现于我国广东省沿岸水域。

南方刺糠虾(新种) *Acanthomysis meridionalis* sp. nov. (图 2)

正模标本 成体雄性,体长 6.7 mm。标本号 K78p-2e, 1978 年 5 月 2 日采自广东吴川县沙田。

副模标本 成体雌性,体长 7.0 mm。标本号 K78P-2g, 5♂♂, 5♀♀, 采集地点、日期同正模。

其他材料 5♀♀, 6 个未成熟标本, 采集地点、日期与正模相同。

成体最大体长, 雄性 6.7mm, 雌性 7.0mm。

体较纤细。第 1—4 腹节背面光滑。第 5 腹节背面具 1 横列小刺。第 6 腹节具两横列小刺, 刺列在背中线上中断; 另具排列不规则的短刺数个。额板三角形、末端稍钝, 伸至第 1 触角柄第 1 节基部附近。头胸甲前侧角圆形。眼粗短, 长约为宽的 $1\frac{1}{2}$ 倍; 角膜宽肾形, 显著宽于眼柄; 眼柄长于角膜。

雄性第 1 触角柄较粗, 第 1 节约为第 2 节长的 $1\frac{1}{2}$ —2 倍; 第 3 节较粗, 长于第 1 节, 约为第 2 节的 2— $2\frac{1}{2}$ 倍, 背面末端内外鞭基部之间具 1 刺突。第 2 触角鳞片较窄, 长约为宽的 5 倍。第 2 触角柄较长, 约为鳞片的 $\frac{2}{3}$ 。上唇长稍大于宽, 前缘中央刺突略粗短、稍尖, 约为上唇本身长度的 $\frac{1}{2}$ 。大颚活动片基部与臼齿突间有 3 根刚毛, 臼齿突具小尖齿。

第 3—8 胸肢内肢掌节由 4—5 小节构成; 胸肢外肢基节外末角具 2—6 小刺。雄性第 4 腹肢外肢细长, 基节长约为末节的 5—6 倍, 末节末端 2 个带小刺刚毛长度略等, 约为末节的 3—4 倍。

尾节三角形, 长约为基部宽的 2 倍。侧缘全长具刺, 共约 40 多个, 基部 $\frac{2}{5}$ 的刺大小相似, 末部 $\frac{3}{5}$ 大小刺相间排列, 在两较大刺间具 1—3 小刺。末端窄圆, 端宽约为基部宽的 $\frac{1}{5}$, 具 4 个较粗壮的大刺, 其长度略等。

尾肢内肢稍长于尾节, 内缘腹面具 2—3 小刺, 多数 3 刺。外肢约为尾节长的 $1\frac{1}{2}$ 倍。

本新种与箕作刺糠虾 *Acanthomysis mitsukurii* (Nakazawa), 1910 颇为相似, 但后者眼柄较长, 背面具 1 钝刺突; 第 3—8 胸肢外肢基板外末角具许多小刺。前 5 腹节背面具大小不等的粗刺 1—3 列, 第 6 腹节具排列不规则的粗刺; 尾节背面近基部具 1 对粗刺。而本新种眼柄粗短, 背不具钝刺突; 胸肢外肢基板外缘末角具 2—6 小刺; 第 1—4 腹节光滑无刺, 第 5 腹节背面具 1 横列刺, 第 6 腹节具 2 横列刺, 且在背中线上中断; 第 6 腹节背面具不规则的短刺; 尾节背面基部附近不具粗刺。

本新种也与 *Acanthomysis fujinagai* Ii, 1964 相近似, 但后者第 6 腹节的背面没有不规则的粗刺, 特征显著, 极易区别。

小异糠虾(新种) *Anisomysis minuta* sp. nov. (图 3)

正模标本 成体雄性, 体长 3mm。标本号 Q158P-6, 1960 年 2 月 17 日采自南海北部 $21^{\circ}00'N$ 、 $108^{\circ}00'E$, 水深 30m, 底质为细砂。

副模标本 成体雌性, 体长 2.7mm。标本号 Q188P-4, 1960 年 4 月 18 日采自南海 $20^{\circ}30'N$ 、 $107^{\circ}30'E$, 水深 34 米, 底质为泥质砂。成体雄性, 体长 2.5mm。标本号 Q249p-1, 1960 年 7 月 16 日采自南海 $20^{\circ}45'N$ 、 $108^{\circ}30'E$, 水深 42 米, 底质为砂质泥; 4♂♂。

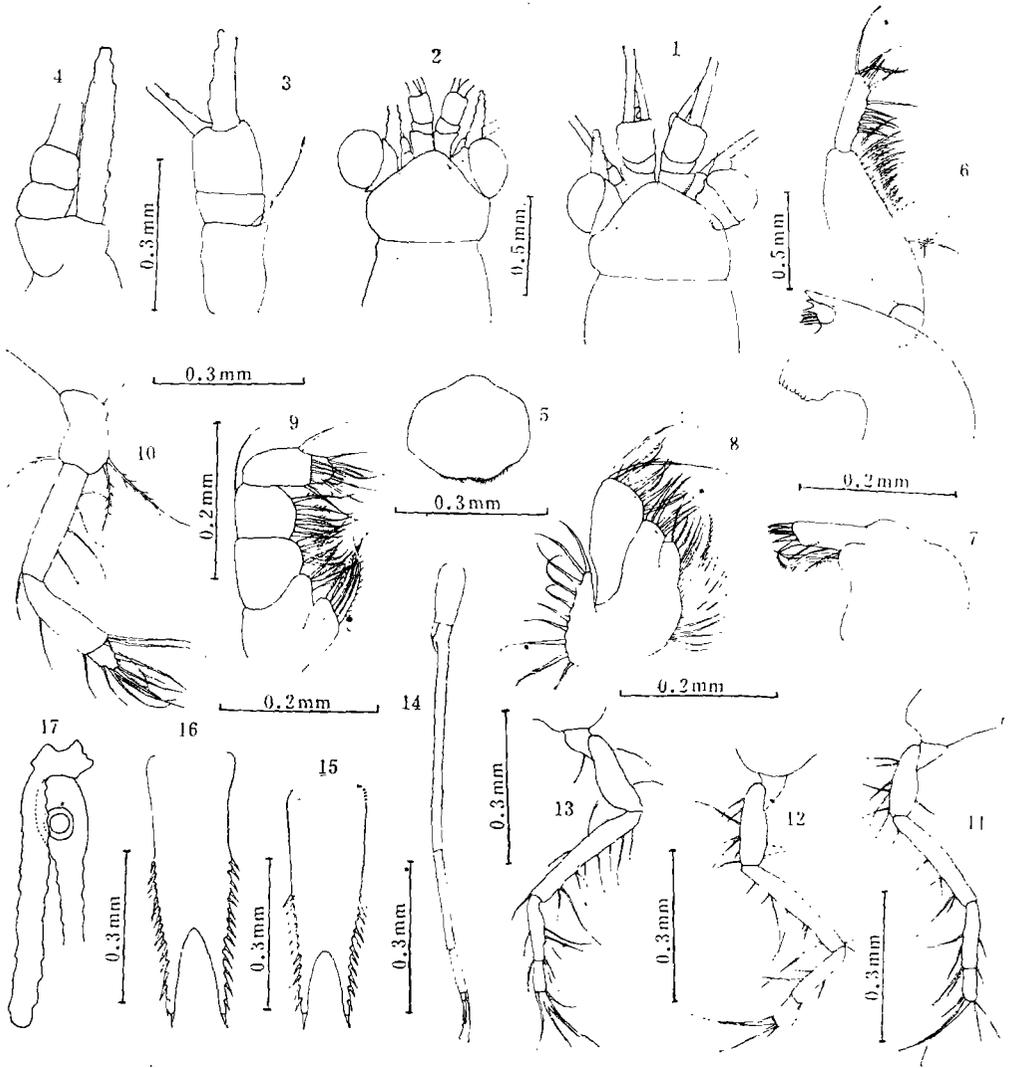


图3. 小异糠虾(新种) *Anisomysis minuta* sp. nov.

1. 雄性头部背面; 2. 雌性头部背面; 3. 第1触角; 4. 第2触角; 5. 上唇; 6. 大颚;
7. 第1小颚; 8. 第2小颚; 9. 第1胸肢内肢; 10. 第2胸肢内肢; 11. 第3胸肢内肢;
12. 第4胸肢内肢; 13. 第5胸肢内肢; 14. 雄性第4腹肢; 15. 雄性尾节; 16.
雌性尾节; 17. 尾肢内肢。

其他材料 北部湾近岸水域, 水深12—63米, 1960年2月8日至11月6日采获11♂♂, 14♀♀。

体小, 前部稍粗, 后部纤细, 体表粗糙。

额板宽圆、稍覆盖眼柄基部, 末端约伸至第1触角柄第1节中部附近。头胸甲前侧角圆形。眼大, 长大于宽; 角膜呈球形, 长而宽于眼柄; 眼柄短而窄, 末部较宽而突出。

雄性第1触角柄较粗, 雌性细, 第1节长于第3节; 第2节显著短, 约为第3节的1/3—1/2。第2触角鳞片细小、披针形, 周围具毛, 末端圆, 长约为宽的5—6倍; 末节长显著大于宽。第2触角柄较短。上唇前缘圆形无刺。大颚发育完全。门齿突钝刺状, 活

动片窄,具2小尖齿,臼齿突且具1排小钝齿,触须3节,第2节宽大。第1小颚外叶较纤细。第2小颚内叶较宽展,外叶小。

第1胸肢内肢粗壮。第2胸肢内肢略纤细。第3—8胸肢内肢掌节不分节;指节细长,呈刚毛状。胸肢外肢基板外缘末角圆形。雄性第4腹肢内肢简单不分节,为很小的叶,极不显著;外肢很长,共分3节,基节长大于末2节之和,端毛短于末节,内毛粗而分节;外毛纤细,其末端伸至尾肢中部后方。雌性具2对育卵板。

尾节较长,约为基部宽的3倍,末部具较深而宽的缺刻,约占尾节长度的 $1/3-2/5$,边缘光滑;尾节侧缘后半约具11—20大小略等的尖刺,左右两叶末端各具1个小尖刺。

尾肢内肢内缘光裸无刺;外肢略长于内肢。

本新种与 *Anisomysis pelewensis* Ii, 1964 和 *A. bifurcata* Tattersall, 1912 近似,但额板宽圆, *A. bifurcata* 者较尖,呈三角形。新种尾节形状和侧刺数目与 *A. pelewensis* Ii 显著不同,前者较长,侧缘约具11—20刺;后者较短,侧缘仅具5个短而纤细的刺。

本种仅采于北部湾沿岸水域,但未见于广东东部沿岸。

参 考 文 献

- [1] 刘瑞玉、王绍武, 1980. 南海刺糠虾属新种描述。海洋与湖沼 11(4): 320—329, 图1—4。
- [2] Bacescu, M., 1973. *Anisomysis levi* n. sp. from the Rea Sea and the dichotomic key of the species belonging to the genus, with description of a new taxon, *Paranisomysis* n. sp. Rev. Roum. Biol. 18: 173—180.
- [3] Hansen, H. J., 1910. The Schizopoda of the Siboga Expedition. *Siboga Exped.* 37: 1—120.
- [4] ———, 1912. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish commission steamer "Albatross", from October, 1904 to March, 1905. Lieut. -Commander L. M. Garrett, U. S. N. commanding. 27. The Schizopoda. *Mem. Mus. Comp. Zool. Harv.*, 35(4): 175—296.
- [5] Ii, N., 1936. Studies on Japanese Mysidacea. *Japanese Journal of Zoology* 7(1): 1—15.
- [6] ———, 1964. Fauna Japonica. Mysidae. Biogeogr. Soc. Jap., 610 pp.
- [7] Ledoyer, M., 1973. *Anisomysis vasseuri* n. sp. Mysidacé Nouveau vivant a l'entrée des frottes sous marines récifales. *Tethys*, 5(2—3): 361—365.
- [8] Murano, M., 1980. Mysidae of shallow water in tanabe bay. *Publ. Seto Mar. Biol. Lab.*, 25(1/4): 211—226, 1980.
- [9] Nakazawa, K., 1910. Notes of Japanese Schizopoda. *Annot. Zool. Japonensis*, 7: 247—261.
- [10] Nouvel, N., 1965. Mysidacés récoltés par S. Frontier a Nosy-Bé. II. Description de deux Mysini appartenant aux genres *Diamysis* et *Acanthomysis*. *Bull. Soc. Hist. Nat. Toulouse* 100: 451—464.
- [11] Pillai, N. K., 1957. Pelagic Crustacea of Travancore. II. Schizopoda. *Bull. Res. Inst. Univ. Travancore*, 8: 15—35.
- [12] ———, 1961. Additions to the Mysidacea of Kerala. *Bull. Res. Inst. Univ. Travancore*, 8: 15—35.
- [13] Pillai, N. K., 1965. A review of the work on the shallow water Mysidacea of the Indian waters. *Proc. Symposium Crust.* 5: 1681—1728, 97 figs.
- [14] ———, 1972. Mysidacea of the Indian Ocean. I. O. B. D. Handbook Vol. 5 pp. 1—125, 65 figs.
- [15] Tattersall, O. S., 1965. Report on a small collection of Mysidacea from the northern region of the Malacca Strait. *J. Zool.*, London 147: 75—98.

ON THREE NEW SPECIES OF MYSIDACEA (CRUSTACEA) FROM THE COASTAL WATERS OF GUANGDONG, CHINA*

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ABSTRACT

The present paper deals with three new species of Mysidacea collected from the coastal waters of Guangdong Province where the mysid crustaceans are rich in species and abundant in quantity. The type materials are deposited in the Institute of Oceanology, Academia Sinica (Qingdao).

Acanthomysis tenella sp. nov. (fig. 1)

Holotype adult ♂ BL. 5.2 mm. No. K78p-li. Wuchuan, Guangdong Prov. 1978. V. 2.

Paratypes Adult ♂♂3, ♀♀4. No. K78p-la-h, j. locality same as holotype.

Other materials 12 ♂♂, 24 ♀♀. locality same as holotype.

Body slender, integument smooth, without transverse grooves, folds or rows of spines on abdominal somites. Rostral plate triangular, bluntly acute at tip. Eyes small and slender, $1\frac{1}{3}$ —2 times as long as broad. Cornea reniform, as broad as, but shorter than eye-stalks.

Antennular peduncle as long as antennal scale, 1st and 3rd segments subequal in length, twice as long as 2nd segments, 3rd segment thick, with a denticle on distal border of dorsal surface between bases of the 2 flagella, thinner in female. Antennal scale narrow, 5 times as long as broad, its distal article $1\frac{1}{2}$ as long as broad. Labrum with long, acute spine-shaped median process anteriorly.

Carpus of thoracic limbs 3—8 consisting of 3—5 subjoints, exopod with 1—3 small denticles on disto-exterior corner of basal plate, proximal joints of exopod in male pleopod 4 five times as long as distal joints. with 2 apical spinous setae of different length, inner seta $2-2\frac{1}{2}$ times as long as distal joint.

Telson elongate triangular, twice as long as broad at base, lateral border with movable spines of subequal length on basal part, but with 1—2 smaller spines between every 2 large spines on distal $\frac{3}{5}$, distal end narrow and rounded, $\frac{1}{8}$ as wide as it at base; with 2 pairs of thinner large spines, inner pair longer than outer ones.

Uropodal endopod with 1 or 2 small spines on inner border under the statocyst.

The present new species is similar to *A. leptura* Liu et Wang, but the body of the latter species is thicker and larger, 6.0—7.5 mm long; the eyes are shorter and thicker; the antennal scale is narrower, $5\frac{1}{2}$ —6 times as long as long as broad; the carpus of 3rd leg consisting of 5 subjoints, with conspicuous dark chromatophores on telson and abdomen. The new species is smaller and thinner, 4.5—5.2 mm long. its eyes thinner and longer; antennal scale 5 times as long as broad.

* Contribution No. 926 from the Institute of Oceanology, Academia Sinica.

Acanthomysis meridionalis sp. nov. (fig. 2)

Holotype Adult male. BL. 6.7 mm. No. K78p-2e Shatian, Wuchuan County, Guangdong Province. 1978. V. 2.

Paratypes Adult female, B. L. 7.0 mm. No. K78P-2g; 5 ♂♂, 5 ♀♀. locality & date of collection same as holotype.

Other materials 5 ♀♀, 6 young.

Body thin, abdominal somite 5 with a transverse row of dorsal spinules. Abdominal somite 6 with 2 transverse rows of dorsal spinules interrupted at mid-dorsum. Besides these, there are also some additional scattered spinules.

Rostral plate triangular, with bluntly pointed apex.

Eyes broad and thick, $1\frac{1}{3}$ as long as broad; cornea reniform, distinctly broader but shorter than eyestalk. Antennular peduncle thick, 1st joint $1\frac{1}{2}$ —2 times as long as 2nd joint, 3rd joint longer than 1st, with a denticle between bases of the inner and the outer flagella. Antennal scale 5 times as long as broad. Labrum slightly longer than broad, spine-shaped median process rather short and acute, about $\frac{1}{2}$ as long as the labrum proper.

Thoracic limbs 3—8 with carpus consisting of 4—5 sub-joints, armed with 2—6 spinules on disto-external corner of exopod. Exopod of proximal joint of pleopod 4 in male about 5—6 times as long as distal joint, 2 apical setae on distal joint subequal, 3—4 times as long as distal joint.

Telson narrow triangular, twice as long as broad at base. Lateral margin with spines throughout its length, spines on basal $\frac{2}{5}$ subequal in length, those on distal $\frac{3}{5}$ with longer and shorter spines alternately arranged, 1—3 shorter (smaller) spines between 2 longer ones, distal end of telson narrow and rounded, $\frac{1}{5}$ as broad as it at base, with 2 pairs of stout spines subequal in length. Uropodal endopod with 2 or 3 spinules on inner border under statocyst.

This new species is very similar to *A. mitsukuri* (Nakazawa, 1910) which can be distinguished from it by the eyestalks being longer and with blunt spine-shaped tubercle on dorsal surface; the basal plate of thoracic limbs 3—8 with numerous spinules on outer distal angle; abdominal somites 1—5 with 1—3 transverse rows of thick spinules in different length on dorsal surface, the sixth abdominal somite with irregularly arranged thick spinules, and with a pair of thick spinules on dorsal surface near base. *A. meridionalis* sp. nov. is also similar to *A. tenella* sp. nov. but in the latter species the sixth abdominal somite without thick spinules on dorsal surface.

Anisomysis minuta sp. nov. (fig. 3)

Holotype Adult ♂, BL. 3.0 mm. No. Q158p-6. South China Sea: 21°00'N, 108°00'E. 1960. II. 17. 30 m deep Fine Sand. 1

Paratypes Adult ♀, BL. 2.7 mm. No. Q188p-4. 20°30'N, 107°30'E. 1960. IV. 18. 34 m deep. Muddy sand. Adult ♂, BL. 2.5 mm. No. Q249p-1. 20°45'N, 108°30'E. 1960. VII. 16.42 m deep; Sandy mud.

Other materials 15 ♂♂, 18 ♀♀. Coastal waters. Gulf of Tonkin (Beibu). 12—63 m deep. 1960. II. 8. XI. 6.

Body small. Anterior part thicker, abdomen thin. Integument not smooth. Rostral plate broadly rounded, short, covering base of eyestalks, antero-lateral corner rounded. Eyes large, slightly longer than broad, cornea globular, longer and broader than eyestalk. which

is short, narrow, and broader distally.

Antennular peduncle thicker in male, its first joint longer than third. Second joint shorter, $1/3$ — $1/2$ as long as third. Antennal scale small and slender, lanceolate, with setae all round its border; apex rounded, 5—6 times as long as broad; distal joint longer than broad. Labrum with anterior border rounded. Mandible well developed, lacina mobilis with 2 blunt teeth, incisor process one single blunt tooth. Mandibular palp 3-segmented. Maxilla I with outer lobe slender. Maxilla II with endite broadened, exite small.

First thoracic limb with stout endopod. Second thoracic limb with endopod slightly slender. 3rd—8th thoracic limbs with propodus not subdivided, dactylus long and slender, seta-shaped. Basal plate of exopods of thoracic limb rounded at outer distal angle. pleopod 4 in male: endopod simple, un-segmented, being a small lobe; exopod long, 3 pointed, proximal joint longer than distal 2 joints combined together, apical setae shorter than distal joint; inner one thick, outer one slender, surpassing middle of uropods. 2 pairs of oostegite present.

Telson long, about 3 times as long as broad at base, with deep and broad incision at distal end, $1/3$ — $2/5$ as long as telson, margins smooth, without tooth; lateral margins of telson with 11—20 subequal spines on distal half, an apical spine on each distal lobe. Inner margin of uropodal endopod naked, without any tooth.

This new species is similar to *A. pelewensis* Ii, 1964 and *A. bifurcata* Tattersall, 1912, but differs from the latter species in its rostral plate being broadly rounded, while in *A. bifurcata* it is triangular, with pointed apex. It can be distinguished from the former species by its telson being longer and armed with more spines on lateral margin, while in *A. pelewensis* the telson is shorter and with only 5 short and slender spines on its lateral margin.